

WHAT IS CLAIMED IS:

1 1. A method for directing control of communication signals in a
2 concatenated payload in a communication circuit, the method comprising:
3 receiving a multiplex order of the concatenated payload in M communication
4 signals;
5 dividing the M communication signals by three to determine a number Y;
6 determining the control of the M communication signals by:
7 designating ^athe first signal of the M communication signals as a ^{1st} ~~the~~
8 control signal;
9 designating ^athe second signal through a Yth signal of the M
10 communication signals as being controlled by the immediately
11 preceding signal thereto; and
12 designating each Y+1st signal of the M signals through the ^aMth
13 communication signal as being controlled by a signal Y
14 positions prior thereto.

1 2. The method of claim 1 wherein the communication signals are
2 synchronous transport signals.

1 3. The method of claim 1 wherein the M communication signals are in a
2 multiplexed order.

1 4. The method of claim 1 wherein the first signal of the M
2 communication signals is a control signal read and write capability for frequency
3 difference buffering using increment/decrement technology.

1 5. The method of claim 1 wherein M is one of 1, 24, 48, 96, 192, 768, and
2 3072.

1 6. The method of claim 1 wherein M is a multiple of three and two and is
2 further greater than or equal to twelve.

1 7. The method of claim 1 wherein the communication circuit is disposed
2 on a router.

1 8. The method of claim 1 wherein the communication circuit is disposed
2 on an application specific integrated circuit (ASIC).

1 9. The method of claim 1 wherein the concatenated payload includes one
2 or more of at least one of an STS-1, an STS-3, an STS-48, an STS-12, an STS-24, and
3 an STS-X, wherein X is a multiple of three.

1 10. A communication circuit for directing control of communication
2 signals in a concatenated payload, the apparatus comprising:
3 a module configured to receive a multiplex order of the concatenated payload
4 in M communication signals;
5 a module configured to divide the M communication signals by three to
6 determine a number Y;
7 a module configured to control of the M communication signals by:
8 designating the first signal of the M communication signals as a
9 control signal;
10 designating the second signal through a Yth signal of the M
11 communication signals as being controlled by the immediately
12 preceding signal thereto; and
13 designating each Y+1th signal of the M signals through the Mth
14 communication signal as being controlled by a signal Y
15 positions prior thereto.

1 11. The communication circuit of claim 10 wherein the communication
2 signals are synchronous transport signals.

1 12. The communication circuit of claim 10 wherein the M communication
2 signals are in a multiplexed order.

1 13. The communication circuit of claim 10 wherein the first signal of the
2 M communication signals is a control signal read and write capability for frequency
3 difference buffering using increment/decrement technology.

1 14. The communication circuit of claim 10 wherein M is one of 1, 24, 48,
2 96, 192, 768, and 3072.

1 15. The communication circuit of claim 10 wherein M is a multiple of
2 three and two and is further greater than or equal to twelve.

1 16. The communication circuit of claim 10 wherein the communication
2 circuit is disposed on a router.

1 17. The communication circuit of claim 10 wherein the communication
2 circuit is an application specific integrated circuit (ASIC).

1 18. The communication circuit of claim 10 wherein the concatenated
2 payload includes one or more of at least one of an STS-1, an STS-3, an STS-48, an
3 STS-12, an STS-24, and an STS-X, wherein X is a multiple of three

1 19. A computer program product for directing control of communication
2 signals in a concatenated payload, the computer program product comprising:
3 signal bearing media bearing programming adapted to:
4 receive a multiplex order of the concatenated payload in M communication
5 signals;
6 divide the M communication signals by three to determine a number Y;
7 control the M communication signals by:
8 designating the first signal of the M communication signals as a
9 control signal;
10 designating the second signal through a Yth signal of the M
11 communication signals as being controlled by the immediately
12 preceding signal thereto; and

designating each Y+1th signal of the M signals through the Mth
communication signal as being controlled by a signal Y
positions prior thereto.

20. The computer program product of claim 19, wherein said signal
bearing media is transmission media.

21. The computer program product of claim 19, wherein said signal
bearing media is recordable media.

22. A communication system for directing control of communication
signals in a concatenated payload in a communication circuit, the communication
system comprising:

means for receiving a multiplex order of the concatenated payload in M
communication signals;

means for dividing the M communication signals by three to determine a
number Y;

means for determining the control of the M communication signals
implemented with:

means for designating ^athe first signal of the M communication signals
as a control signal;

means for designating ^athe second signal through a Yth signal of the M
communication signals as being controlled by the immediately
preceding signal thereto; and

means for designating each Y+1th signal of the M signals through the
Mth communication signal as being controlled by a signal Y
positions prior thereto.

23. The communication system of claim 22 wherein the communication
signals are synchronous transport signals.

24. The communication system of claim 22 wherein the M communication
signals are in a multiplexed order.

1 25. The communication system of claim 22 wherein the first signal of the
2 M communication signals is a control signal read and write capability for frequency
3 difference buffering using increment/decrement technology.

1 26. The communication system of claim 22 wherein M is one of 1, 24, 48,
2 96, 192, 768, and 3072.

1 27. The communication system of claim 22 wherein M is a multiple of
2 three and two and is further greater than or equal to twelve.

1 28. The communication system of claim 22 wherein the communication
2 circuit is disposed on a router.

1 29. The communication system of claim 22 wherein the communication
2 circuit is disposed on an application specific integrated circuit (ASIC).

1 30. The communication system of claim 22 wherein the concatenated
2 payload includes one or more of at least one of an STS-1, an STS-3, an STS-48, an
3 STS-12, an STS-24, and an STS-X, wherein X is a multiple of three.